Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) ~~Luminescence conversion~~ A luminescence-conversion LED, comprising:

an LED chip emitting primary radiation with a peak wavelength in the range of 300 to 470 nm, ~~this~~ the primary radiation being converted partly or completely into secondary longer-wave radiation by photoluminescence by at least one phosphor which is exposed to the primary radiation of the LED,

wherein the ~~conversion is achieved~~ at least one ~~with the assistance of a~~ phosphor is a nanophosphor ~~of~~ having a mean particle size d50 that lies in the range of 1 to 50 nm~~, preferably 2 to 25 nm, which is referred to hereafter as a nanophosphor~~.

2. (Currently Amended) The LED as claimed in claim 1, wherein the at least one phosphor is dispersed in an encapsulating compound which is exposed to the primary radiation, the encapsulating compound ~~consisting of~~ comprising insulating material.

3. (Previously Presented) The LED as claimed in claim 1, wherein a blue emitting primary radiation of a peak wavelength of 420 to 470 nm is used, together with a secondary yellow emitting phosphor.

4. (Previously Presented) The LED as claimed in claim 1, wherein a UV emitting primary radiation of a peak wavelength of 330 to 410 nm is used, together with three secondary red, green and blue emitting phosphors.

5. (Currently Amended) The LED as claimed in claim 4, further comprising ~~wherein the following~~ a phosphor system comprising ~~is used~~: ~~for red:~~ Y2O2S:Eu for red; ~~and for green~~: ZnS:Cu,Al or ZnS:Cu,Mn or ZnS:Cu for green; and, ~~for blue~~ SCAP or ZnS:Ag for blue.

6. (Currently Amended) ~~The LED as claimed in claim 1~~ A luminescence-conversion LED, comprising:

an LED chip emitting primary radiation with a peak wavelength in the range of 380 nm to 410 nm, the primary radiation being converted partly or completely into secondary longer-wave radiation by photoluminescence by at least one phosphor, wherein the at least one phosphor is a nanophosphor having a mean particle size d50 that lies in the range of 1 to 50 nm and which is exposed to the primary radiation,

wherein the at least one phosphor ~~is chosen such that it~~ has ~~only low~~ an absorption in the range of the peak wavelength of the primary radiation of less than 50% and is ~~in particular a phosphor that is~~ made to luminesce by an activator, and

wherein the at least one phosphor comprises at least one of sulfates, borates, and spatites.

7. (Currently Amended) ~~The LED as claimed in claim 6,~~ A luminescence-conversion LED, comprising:

an LED chip emitting primary radiation with a peak wavelength in the range of 330 nm to 470 nm, the primary radiation being converted partly or completely into secondary longer-wave radiation by photoluminescence by at least one phosphor which is exposed to the primary radiation, the at least one phosphor being a nanophosphor having a mean particle size d50 that lies in the range of 1 to 50 nm,

wherein the nanophosphor has an absorption in the range of the peak wavelength of the primary radiation of less than 50% and is made to luminesce by an activator, and

wherein [[a]]the nanophosphor~~ is chosen such that~~ has a reflection of greater than 50%.

~~an identical, but coarser-grained phosphor, which is referred to hereafter as a μm phosphor, exhibits at the peak wavelength of the LED chip a reflection of greater than 50% when a reflection measurement is carried out on a pressed powder tablet which consists of the μm phosphor and which is optically dense, that is to say has an angle-integrated transmission of < 5%, coarse-grained meaning that the mean particle size d50 is greater than 1 μm, in particular d50 is ≤ 20 μm, preferably d50 is ≤ 10 μm~~.

8. (Currently Amended) ~~The LED as claimed in claim 6,~~ A luminescence-conversion LED, comprising:

an LED chip emitting primary radiation with a peak wavelength in the range of 300 nm to 470 nm, the primary radiation being converted partly or completely into secondary longer-wave radiation by photoluminescence by at least one phosphor which is exposed to the primary radiation, the at least one phosphor being a nanophosphor having a mean particle size d50 that lies in the range of 1 to 50 nm,

wherein ~~the~~ a long-wave absorption edge of the nanophosphor is the wavelength related to a point (A50) where the absorption of the phosphor has fallen to only 50% of the maximum absorption, and is located at a shorter wavelength than a long wavelength edge of the primary emission of the LED chip, said long wavelength edge being defined as the wavelength λ90, which belongs to the threshold where the emission intensity of the primary radiation reaches 10% of the peak emission intensity of the primary emission of the LED chip~~, which is described by the point A50, lies under the long-wave edge of the primary emission, described by the long-wave point FW 90, preferably FW 70, particularly preferably by FW 50, extremely preferably by the peak wavelength itself.~~

9. (Currently Amended) The LED as claimed in claim 7, wherein [[a]] the nanophosphor ~~with~~ includes an activator ~~is used~~, ~~chosen such that~~ the concentration of the activator is ~~low, to be precise reaches~~ at most 75%~~, preferably 10 to 50%,~~ of the concentration of the activator ~~in the case of the~~ included in an identical μm-phosphor ~~μm-phosphor~~, so that the ~~given~~ activator concentration of the μm-phosphor ~~μm-phosphor~~ is higher and serves as a reference corresponding to 100%, the μm-phosphor ~~μm-phosphor~~ being chosen such that it has a high absorption of more than 50% in the range of the peak wavelength of the primary radiation, ~~preferably more than 50%, in particular more than 70%,~~ but an identical phosphor with low concentration of the activator has low absorption of at most 30% in the range of the peak wavelength of the primary radiation~~, preferably at most 30%, in particular at most 20%~~.

10. (Currently Amended) The LED as claimed in claim 1, wherein a single phosphor is used, comprising semiconducting nanoparticles~~, in particular~~ including CdSe.

11. (Currently Amended) The LED as claimed in claim 1, wherein the chip ~~can be~~ is connected to a voltage source via electrically conductive terminals.

12. (Previously Presented) The LED as claimed in claim 11, wherein the voltage source provides a voltage of at most 5 V.

13. (Currently Amended) The LED as claimed in claim 9, wherein the nanophosphor is a garnet A3B5012 which is doped with a rare earth element D, the proportion of D being at most 0.9 mol % of a component A of the garnet A3B5012.

14. (Currently Amended) ~~The production of LEDs with nanophosphors as claimed in claim 1,~~ A method of manufacturing a luminescence conversion LED with a LED chip emitting primary radiation with a peak wavelength in the range of 300 to 470 nm, the radiation being converted partly or completely into secondary longer-wave radiation by photoluminescence by at least one phosphor, wherein the at least one phosphor is a nanophosphor having a mean particle size d50 that lies in the range of 1 to 50 nm,

wherein the ~~phosphor~~ nanophosphor is ~~being~~ applied directly to the LED chip by means of CVR or CVD.

15. (Currently Amended) ~~The production of LEDs with nanophosphors as claimed claim 1,~~ A method of manufacturing a luminescence conversion LED with a LED chip emitting primary radiation with a peak wavelength in the range of 300 to 470 nm, the radiation being

converted partly or completely into secondary longer-wave radiation by photoluminescence by at least one phosphor, wherein the at least one phosphor is a nanophosphor having a mean particle size d50 that lies in the range of 1 to 50 nm,

wherein the ~~phosphor~~ nanophosphor is ~~being~~ applied to the chip by means of printing, spraying or ink-jet.

16. (Canceled).

17. (New) The LED as claimed in claim 1, wherein a single phosphor is used comprising semiconducting nanoparticles together with a primary radiation source whose FWHM is less than 20 nm.

18. (New) The LED as claimed in claim 1, wherein a single phosphor is used comprising semiconducting nanoparticles together with a primary radiation source whose FWHM is less than 10 nm.

19. (New) A luminescence-conversion LED, comprising:

an LED chip emitting primary radiation with a peak wavelength in the range of 300 nm to 470 nm, the primary radiation being converted partly or completely into secondary longer-wave radiation by photoluminescence by at least one phosphor which is exposed to the primary radiation, the at least one phosphor being a nanophosphor having a mean particle size d50 that lies in the range of 1 to 50 nm,

wherein a long-wave absorption edge of the nanophosphor is the wavelength related to a point (A50) where the absorption of the phosphor has fallen to only 50% of the maximum absorption, is located at a shorter wavelength than a long wavelength edge of the primary emission of the LED chip, said long wavelength edge being defined as the wavelength λ70, which belongs to the threshold where the emission intensity of the primary radiation reaches 30% of the peak emission intensity of the primary emission of the LED chip.

20. (New) A luminescence-conversion LED, comprising:

an LED chip emitting primary radiation with a peak wavelength in the range of 300 nm to 470 nm, the primary radiation being converted partly or completely into secondary longer-wave radiation by photoluminescence by at least one phosphor which is exposed to the primary radiation, wherein the at least one phosphor is a nanophosphor having a mean particle size d50 that lies in the range of 1 to 50 nm,

wherein a long-wave absorption edge of the nanophosphor is the wavelength related to a point (A50) where the absorption of the phosphor has fallen to only 50% of the maximum absorption, is located at a shorter wavelength than a long wavelength edge of the primary emission of the LED chip, said long wavelength edge being defined as the wavelength λ50, which belongs to the threshold where the emission intensity of the primary radiation reaches 50% of the peak emission intensity of the primary emission of the LED chip.

21. (New) A luminescence-conversion LED, comprising:

an LED chip emitting primary radiation with a peak wavelength in the range of 300 nm to 470 nm, the primary radiation being converted partly or completely into secondary longer-wave

radiation by photoluminescence by at least one phosphor which is exposed to the primary radiation, wherein the at least one phosphor is a nanophosphor having a mean particle size d50 that lies in the range of 1 to 50 nm,

wherein a long-wave absorption edge of the nanophosphor is the wavelength related to a point (A50) where the absorption of the phosphor has fallen to only 50% of the maximum absorption, is located at a shorter wavelength than a long wavelength edge of the primary emission of the LED chip, said long wavelength edge being defined as the peak wavelength (*p), which belongs to the peak of the emission intensity of the primary radiation of the LED chip.